

Workforce Development Strategies:  
Agribusiness Cluster Report

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For further information regarding this report, please contact

*PRICEWATERHOUSECOOPERS*   
Tessie San Martin

(703) 741-2422

[tessie.san.martin@us.pwcglobal.com](mailto:tessie.san.martin@us.pwcglobal.com)

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## 1. INTRODUCTION

At the highest levels, Egypt recognizes the need for human capital development in order to increase its competitiveness in the global economy. In a July 1999 meeting with Vice President Gore, President Mubarak asked for U.S. assistance in three areas, one of which was human resource development. As a result of this conversation, and analysis already conducted, USAID/Egypt has included in its strategy a human capital development strategic objective that strives to obtain concrete results in this area. In response to the Mission's new strategic objective, a team from PricewaterhouseCoopers, SRI International, and J.E. Austin Associates (hereafter referred to as the Workforce Development Strategies (WDS) Team) was selected to operationalize parts of this Mission strategy and conduct the Workforce Development Strategic Planning Process.

Through dialogue with agribusiness stakeholders from September through December of 1999, the WDS Team attempted to collect information and present a compelling story of "why" stakeholder action on workforce development was necessary in order to make the industry cluster more competitive. The purpose of this report is to review the WDS Team's findings and the actions that stakeholders agreed would begin to address some of the cluster's workforce challenges. This cluster report is divided into the following four sections:

- **Global Trends:** This section highlights the major trends in this industry cluster worldwide that will affect the Egyptian cluster and its workforce. The trends outlined in this section are by no means the only global trends in the cluster, but represent the "mega-drivers" that could have the biggest impact on the Egyptian industry's growth prospects.
- **Egyptian Cluster:** This section provides a high-level description of the Egyptian agribusiness cluster, and specifically describes a few of the potential high-impact segments relevant to workforce development and competitiveness. This is not an exhaustive cluster competitive analysis. Instead it focuses on describing elements of the cluster most relevant for understanding the workforce development challenges in the cluster.
- **Workforce Development Implications:** In light of the global trends and the WDS Team's analysis of the current challenges facing the Egyptian cluster, this section identifies many of the key skills gaps and other workforce development issues that must be addressed if the cluster is to be competitive. This section also reviews the supply-side of the workforce equation, looking specifically at how well educators and training providers meet industry's skill needs.
- **Initiatives for Action:** The final section of the cluster report is a summary of the cluster strategic planning workshop. This section does not represent the WDS Team's

recommendations to USAID on what initiatives the donor should support.<sup>1</sup> Instead this section serves to document the stakeholders' priorities and areas where this process began to generate stakeholder momentum for workforce development. The initiatives highlighted in this section represent actions that the stakeholders designed and, to varying degrees, committed to implement.

Also intertwined in this report (primarily in Section III) is reference to gender specific issues.<sup>2</sup> The purpose of including a gender component in this workforce development cluster strategic planning process is to increase private sector awareness of equity issues while pointing out ways for industries to improve their competitiveness by using all workforce participants as effectively as possible. Like men, women seeking employment in the formal sector often lack the skills required for Egypt to develop a knowledge-based, globally competitive economy. This is sometimes compounded by cultural, legal, and economic factors that limit women's opportunities, earnings, and benefits. Yet women's employment in Egypt is increasingly critical to household income and family well being. Furthermore, some of the social issues identified in this report pertain to the career development of men as well as women.

## Cluster Initiatives

The Egyptian agribusiness cluster has the potential to increase its competitiveness both in the local and export markets. As demonstrated through this Workforce Development Strategic Planning Process, one of the keys to this success is the development of a flexible and dynamic workforce. In the course of the WDS Team's research and dialogue with stakeholders, two workforce challenges emerged as key to realizing greater cluster competitiveness: 1) skills development and 2) recruitment and retention of workers.

On December 2, 1999, thirty-two agribusiness cluster stakeholders worked together at a Strategic Planning Workshop to outline initiatives that would begin to address this extensive challenge. Many initiatives were specific to industry's internal human resource management, and some centered around increasing the relevance of training providers and educators' curriculum and teaching methods. A third set of initiatives focused on improving the linkages between demand (industry) and supply (educators/training providers). The stakeholders selected the following three initiatives to undertake:<sup>3</sup>

### **Initiative 1: Education Provider-Industry Linkage Program**

Agribusiness educators and training providers are generally not able to provide students with the knowledge and skill base that is relevant to the current needs of the industry. As a result, stakeholders agreed to an initiative that would create an industry/training provider partnership. Under the initiative, the agribusiness industry would open up a dialogue with the agricultural faculties and training institutes to articulate their needs for a more pragmatic education. The focus of the program would be to introduce more practical,

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<sup>1</sup> The WDS Team presented its recommendations to USAID/Egypt in a PowerPoint presentation on 11/9/99.

<sup>2</sup> Gender issues, for the purposes of this report, refers to systems of culturally constructed roles for men and women and relations between men and women.

<sup>3</sup> These initiatives are detailed in full action plans in Section 4 of this report.

hands-on curricula at the agricultural colleges and institutes, more closely tied to the needs of the agribusiness industry. It will also seek to upgrade and diversify the current set of workforce skills through such actions as demand assessments and formal internship programs. Below is the action plan designed by stakeholders for this initiative:

- **Step 1:** Define training needs of agribusiness industry. Consolidate/update existing training needs assessment information (*January 18, 2000*).
- **Step 2:** Prepare presentation of training needs assessment (*End January 2000*).
- **Step 3:** Contact regional faculties of agriculture and institutes to articulate training needs (*March 2000*).
- **Step 4:** Consult with teachers and faculties about updates of the curriculum oriented towards practical-learning techniques. Faculty and instructors modify programs to reflect current needs (*May 2000*).
- **Step 5:** Implement new program with mix of classroom learning and applied learning on the farm and in the processing plants (*July 2000*).
- **Step 6:** Review and monitor program, and make adjustments if needed (ongoing annually).

### **Initiative 2: Strengthening Internal Human Resource Systems**

The proposed initiative will strengthen the internal HR systems of agribusiness cluster companies. The Association of Human Resource Managers (AHRM) and the Management Development Initiative (MDI) will develop a senior executive leadership program to generate awareness of HR development strategies. The cluster stakeholders will also work with the AHRM to develop a model HR system appropriate for agribusiness firms. Below is the action plan designed by stakeholders for this initiative:

- **Step 1:** The Association of Human Resource Managers (AHRM) and the Management Development Initiative (MDI) will develop a senior executive leadership program to develop awareness of HR development strategies (*February 2000*).
- **Step 2:** AHRM/MDI will assess the current human resource systems in agribusiness companies (*March – July 2000*).
- **Step 3:** AHRM/MDI will develop model HR systems appropriate to the agribusiness companies in Egypt (*February – March 2000*).
- **Step 4:** AHRM/MDI will help the agribusiness companies systems to introduce the new HR systems. The HR new systems will include: job descriptions, training needs assessment/delivery mechanisms, and establish career paths for the employees. (*April – December 2000*).
- **Step 5:** The new HR systems introduced will be certified by AHRM to ensure the systems meet the standards set by the Association. (*Ongoing starting April 2000*).

### **Initiative 3: Horticulture Export Improvement Association (HEIA) Workforce Committee**

This initiative will enhance the role of HEIA in responding to training/HR management needs of the sector. HEIA will join with other cluster members to form an HR Committee that can develop action plans for addressing workforce development issues at the association level. One of the outcomes of this program will be to create and disseminate

successful/best practice road maps for Egypt. The program will develop an action plan that will include raising funds within the association for training/HR development purposes. Below is the action plan designed by stakeholders for this initiative:

- **Step 1:** HEIA champions will meet to finalize objectives and work plan of the initiative (*December 15, 1999*).
- **Step 2:** Form a finance committee to develop a procedure to assess members for training programs (*February 15, 2000*).
- **Step 3:** Develop an action plan for human resource development (*February 15, 1999*).
- **Step 4:** Recruit new members of HEIA (*March-September, 2000*).
- **Step 5:** Create a training manual with different modules for the different HR development/training needs of the cluster firms (*July 2000*).
- **Step 6:** Develop a certification program to recognize specific professional, technical, and operational skills within the agricultural cluster (*Starts September 2000, with ongoing implementation*).
- **Step 7:** Create a clearinghouse to disseminate information on: cluster training/workforce needs; HR management expertise; training providers, and specialized skills and service providers, e.g. repair and maintenance, security (*August- October 1999*).

## Next Steps

This phase of the Workforce Development Strategic Planning Process assisted in creating stakeholder awareness and dialogue on potential solutions to workforce development challenges. However, the true test will be capitalizing on present stakeholder momentum and ensuring solutions materialize into real, dynamic change. The WDS Team looks forward to working with the cluster's stakeholders over the coming months to assist in the implementation of these workforce development strategies with the ultimate goal of greater cluster competitiveness.

## 2. GLOBAL TRENDS

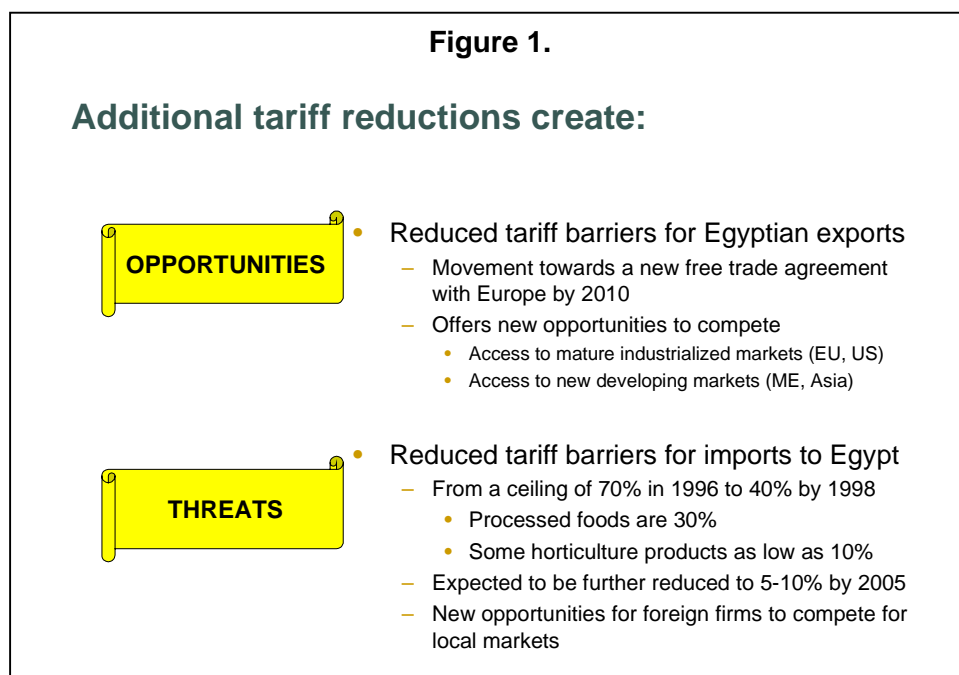
Many players in Egypt's agribusiness cluster are already keenly aware of the trends in the global marketplace that are affecting the competitiveness of their products and services. The following three key megadrivers will directly influence how Egypt develops its workforce and achieves overall cluster competitiveness.

### Globalization

Globalization has led to significant impacts on the agribusiness cluster. First, leading food processors, food ingredient suppliers, retailers and fast food service companies have created strategic partnerships and alliances resulting in the emergence of successful multinational organizations. Examples include Nestle, Unilever, Safeway, and Burger King. Many of these multinational companies have establishments in Egypt. These companies are typically operating in competitive, high-growth segments of the industry, many new jobs will be created in these segments over the next ten years. These companies and their customers require product standardization, quality control, good hygiene, and outstanding customer service, among other business practices. These business practices in turn translate back into specific high standard skill set requirements for Egyptian workers

entering this industry.

Moreover, as a result of globalization, reductions in tariff and non-tariff barriers offer the Egyptian agribusiness cluster both an opportunity and a threat. Reduced tariff barriers will open new markets to



Egyptian food exports. On the other hand, as imported goods are allowed into Egypt, competition for the local markets will become more intense (*See Figure 1*).

Another result of globalization is the internationalization of tastes for processed food. The same popular processed foods are consumed around the world (Kellogg's cereal, Nabisco's Ritz cracker, Heinz' ketchup, and Campbell soups). These companies are interested in the

delivery of large quantities of standardized produce, and demand compliance to international standards and regulations.

While the over-all processed food market represents only slow growth in the industrialized countries, the composition of the finished products are undergoing significant changes. Increasing popularity of ethnic food creates new opportunities. Demand for ethnic dishes started with the popularity of Italian cuisine, and has expanded to other ethnic food choices such as Chinese, Thai, Mexican, Middle Eastern and other ethnic dishes. Moreover, frequent choice of ethnic dishes is moving from fine restaurants to the dynamic fast food franchises, and to home cooking.

The high international growth in demand for ethnic foods creates special niche market opportunities for Egyptian firms to export ethnic processed foods. The workforce skill requirements for food processing firms to enter these export markets include food plant sanitation, product R&D, machinery maintenance, packaging, marketing, brand development, and logistics management.

Consumers are also demanding healthier foods and the industry is responding. New food products designed to prevent or even cure diseases are being introduced around the globe in great numbers. Japan and Germany are leaders in this movement. At the same time in the United States a new product category known as “Nutraceuticals” are being discussed by the leading food processors. Herbal preparations, antioxidants, and other newly discovered physiologically active compounds (e.g. iso-flavones in soybean, etc.) extracted from plants are being introduced by mainstream marketers. The health conscious and affluent aging population fuels interest in these preparations. Also, food preparations that enhance physical performance (sport-drinks, etc.) are becoming popular.

In addition to what consumers do not want in their food products, there is a new and powerful emphasis on healthier ingredients (low-fat, low salt, and no preservative) they do desire in processed food. Consumers increasingly read food labels and avoid additives with chemical sounding names, synthetic colors, and flavors. Organically grown and natural food is considered as superior by an increasing number of consumers and they are willing to pay much higher price for such products. Ultimately this trend for healthier products will demand a workforce that can conduct in-depth R&D and continually innovate their products.

## Food Safety

Consumers’ concern for food safety is now a principal issue in every country. Recently, an incidence of Salmonella infestation of poultry in Cairo was front-page news. Unauthorized use of preservatives in unprocessed milk was reported in Egypt, and also high levels of pesticide residues may occur in fruits and vegetables. Although organic farming is not yet expected in Egypt, educated consumers express concern about dangerous contaminants in food.

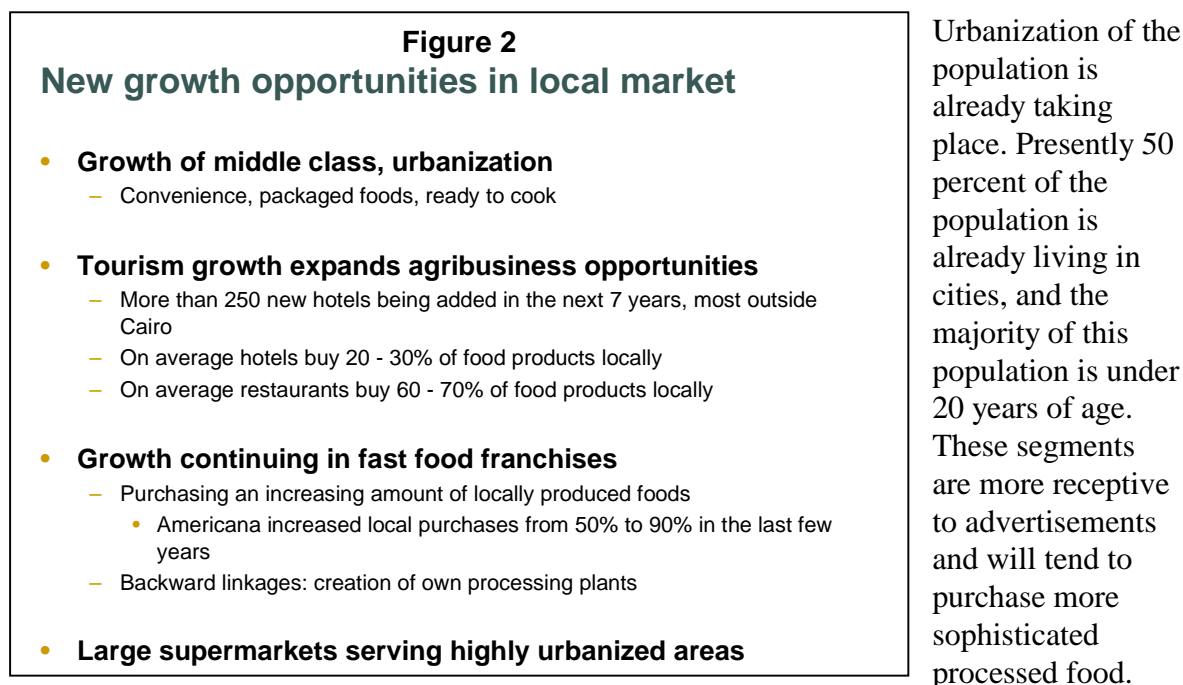


These incidences put a great pressure on food plant sanitation, process control and quality assurance. Food processors will be required to comply with strict quality assurance procedures, such as HACCEP, ISO-90002, and ISO 14000. Representatives of the buyers often visit the food plants of the suppliers to assure strict sanitary procedures, and record keeping.

It is likely that the adverse publicity in Europe for genetically modified crops also will spread to Egypt in the foreseeable future. Egypt enjoys large export markets for fresh and processed potatoes, one of the crops where genetically modified varieties are common. This trend could affect the potato export business of Egypt, and perhaps even the local market. This emphasis on safer foods will place great pressure on Egyptian firms to emphasize workforce skills such as food plant sanitation, process control, and quality assurance.

### Urbanization and Rising Wealth

Presently only 30 percent of the Egyptian population is purchasing processed food, and the rest are buying only food staples. This situation will change dramatically as women in the workforce increase and families become more affluent. The rising middle classes in developing countries such as Egypt create attractive markets for higher-value processed and prepared foods and snack foods. The preference for convenience and speed of preparation, such as prepared or packaged fresh produce and ready-to-eat meal preparations will intensify. Also, more meals will be consumed away from home in fast food restaurants, and supermarket stores are selling take-out prepared food (*See Figure 2.*)



The city population is also interested in fresh produce. As the populations move further from farms, technologies that allow long-distance distribution of fresh produce are advancing. Such produce include fresh, peeled and diced fruits packaged in controlled

atmosphere containers, shredded salad mix preparations, and a number of other easy-to-prepare commodities.

Women enter the workforce in large numbers and have less time for food preparation; as income rise they are also able to pay for convenience and easy preparation. Moreover, meals will be consumed away from home more frequently in fast food restaurants, and supermarket stores are offering take-out prepared foods (*See Figure 2*).

The expected high growth rates in convenience and prepared foods in Egypt creates increased demand for the skill sets required of workers in these segments of the industry including food plant sanitation, process control, quality assurance product research and development, machinery maintenance, and packaging.

In summary, all three of the presented agribusiness megadrivers imply specific strategies for Egypt's agribusiness cluster if it is to succeed in this competitive marketplace.

### 3. EGYPTIAN AGRIBUSINESS CLUSTER

The Egyptian agribusiness cluster is quite large and complex. The full population of the agribusiness cluster in Egypt can be broken into two main categories: 1) processed and fresh foods; and 2) agricultural support services. The tables below provide an outline of the segments in each of these categories.

#### *Category I: Processed Foods Segments*

Fruits/ Vegetables	Dairy Foods	Field Crops	Meat/Poultry/Fish	Specialty Foods
Fresh fruits & vegetables	Dairy products	Flour	Meat	Jams & jellies
Frozen fruits & vegetables		Cereals & grains	Processed meat	Confectionery
Dehydrated fruits & vegetables		Maize	Poultry products	Pasta
Canned fruits & vegetables		Barley, grain, rice,	Fish/fish products	Biscuits
Mushrooms		Breads	Processed fish	
		Sugar		

#### *Category II: Agricultural Services Segment*

Equipment for Plant Production	Equipment for Animal Production	Storage & Distribution	Process Equipment	Support
Fertilizer	Cattle/horse breeding farm	Storage & handling	Sugar cane processing	Consulting & advisory services
Chemicals	Pig/sheep breeding	Distribution	Sugar refinery	Research
Seeds	Animal feed	Refrigeration	Grain & maize	Co-operative ass.
Tractors/power cultivators	Fish farming	Packaging	Flour, semolina, rice milling	Agricultural business software
Ploughs	Dairy farm		Bread-making	
Harrows			Cake & biscuit	
Fertilizer spreaders			Commercial bakery	
Irrigation and watering			Sugar & confectionery	
Crop protection			Syrup, candied, fruit, jam plants	
Balers			Chocolate making	
Cereal harvesting/ processing			Meat processing/ sausage	
Crop processing			Butchery	
Mushroom farm			Fish processing	
			Dairy industry	

#### High-Impact Segments

In order to determine what segments could best respond to the global megadrivers through workforce development methods, the WDS Team used the following criteria to select high-priority segments:

- Potential for employment growth/large workforce requirement;
- Workforce skills enhancement critical to viability of cluster;

- Strong private sector interest;
- High-value added (i.e. critical to the overall competitiveness of cluster supply chain);
- High-growth potential in Egypt; and
- Strong potential for exporting.

Although there are several agribusiness segments in which many of these cluster screens apply, the WDS Team focused on two segments:

- Fresh Fruits and Vegetables
- Processed Foods

### ***Fresh and Fruits and Vegetables***

Fruit and vegetable production was selected because it is one of the largest agribusiness segments and represents the highest market value segment of the Egyptian agriculture industry. The export business, as well as the local market, is expected to grow faster than other commodities. Fresh fruits and vegetables already enjoy attractive export markets, with excellent growth potential. In 1998, approximately 100 firms exported over a total of \$450 million in fresh fruits and vegetables. These export firms presently employ approximately 17,000 full-time direct hires and are expected to create 1,000 direct and 2,000 indirect jobs each year.<sup>4</sup>

### ***Processed Foods***

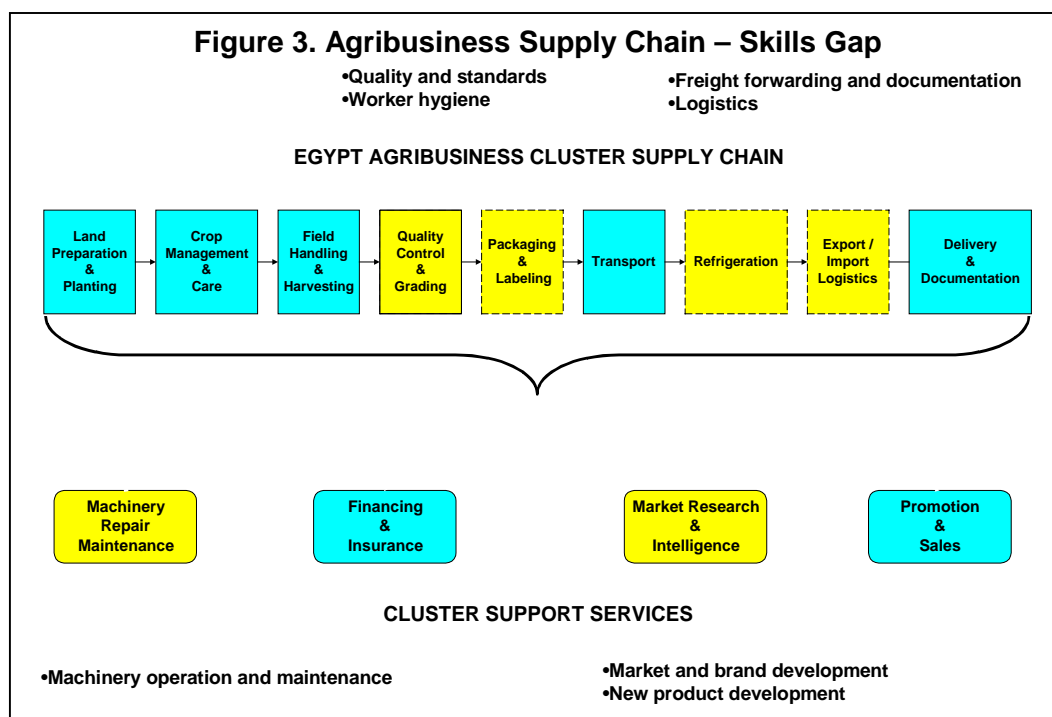
There are a total of 1,167 processed food companies in Egypt. Of that group, a core group of 385 more developed companies exists. Processed food represents about 30 percent of Egypt's industrial value added. The main processed food products include frozen fruits and vegetables, canned and packed vegetables, fruit juices, soups, sauces and baby food. However, only about 30 percent of the processed food in Egypt is considered of export quality. The processed food segment accounts for over 35 percent of the labor employed in the industrial sector and is expected to create 10,000 direct full-time and 20,000 indirect jobs over the next five years.

## **The Supply Chain**

Both of these high impact segments represent great potential for Egypt's agribusiness cluster. However, in order to be successful both in the export and local markets, all parts of the cluster supply chain need to be competitive. As indicated in the example supply chain in *Figure 3*, interviewed stakeholders pointed out several weak links within this chain that directly affect the competitiveness of these and other high-impact agribusiness segments.

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<sup>4</sup> This figure only includes the export firms and does not include seasonal labor. If these were included, the figures would be much higher.



- ***Quality Control and Grading***

There is an overriding need to assure food safety and quality of the produce for the local market. Moreover, the Egyptian agribusiness can improve its export business by establishing quality assurance programs that meet or even exceed international standards. Providing larger-scale education in HACCP, GMP ISO for industry managers and quality assurance personnel would help to achieve that goal. In addition training is needed for specialists who can assist in the development of safeguard measures against undesirable chemical residues in farm products.

- ***Marketing Data and Appropriate Personnel***

Market data is largely unavailable for the Egyptian agro-industry. This is a great obstacle for both crop planning and food processing development, and to drive both local and export markets. Training of market research experts are needed to establish market oriented planning, define niche market, highlight expected changes in global trends and replace production-driven strategies which frequently result year to year fluctuation in crop.

- ***Export / Import Logistics & International Regulations***

There is a shortage of agribusiness personnel who are familiar with international food regulations, labeling requirements, and modern quality control procedures. Also, it is difficult to find experts in packaging technology and shipping.

- *Farm Mechanics Skills*

On the farms there is a serious shortage of skilled personnel to carry on maintenance of farm machinery and equipment. Vocational training providing training for agriculture supervisory personnel is lacking and a serious shortage exists for highly skilled labor in the farms.

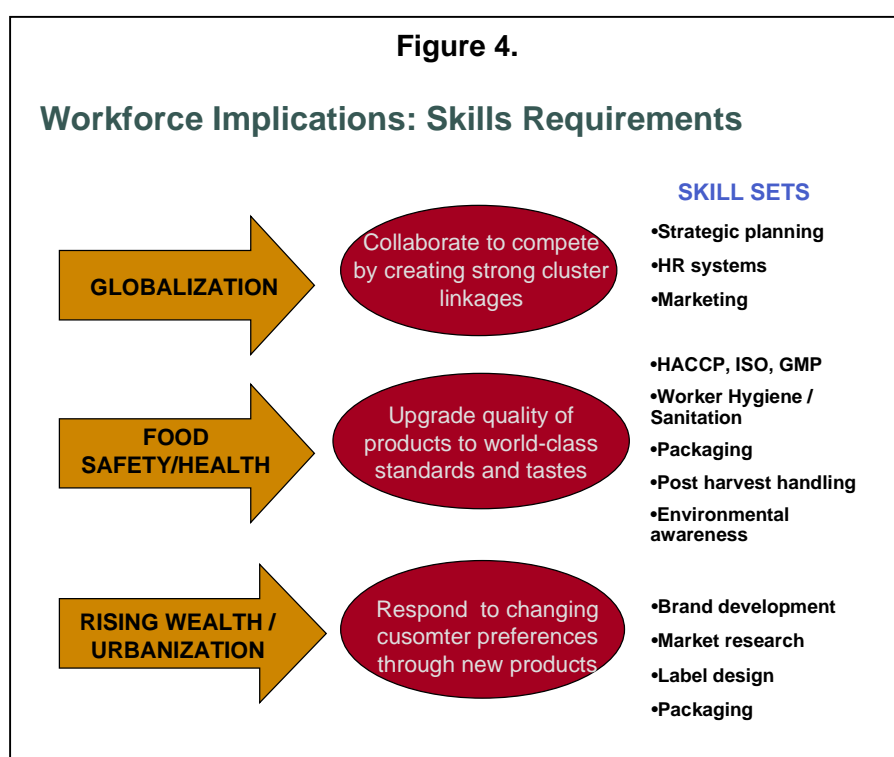
The cluster will ultimately need to strengthen these weak links to become truly competitive. Not every firm needs to develop expertise in each area of the supply chain. Instead, if the agribusiness industry is to act as a true cluster, individual firms will continue to pursue vertical integration where they have a competitive advantage, and work together with other cluster firms knowledgeable about other areas of the chain. However, realizing this degree of cluster coordination, implies a well-trained and developed workforce.

#### 4. WORKFORCE DEVELOPMENT IMPLICATIONS

As the Egyptian agribusiness cluster faces new global challenges, the success of particular high-impact segments, as well as the entire supply chain, will depend on how successfully the cluster can upgrade the present and future workforce's skill sets and retain those workers.

##### Skills Gaps

Each of the previously described megadrivers implies the necessity of very concrete skill sets (See Figure 4).



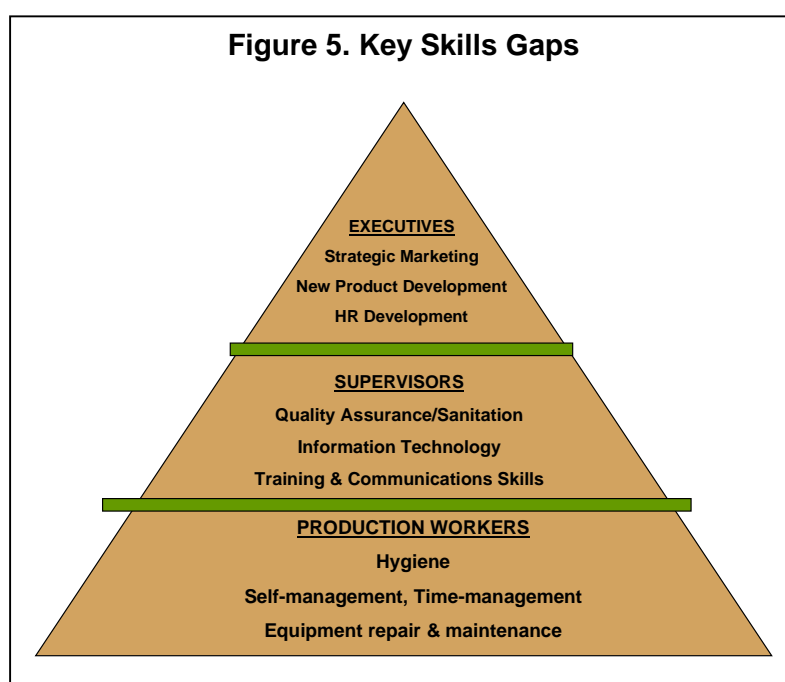
*Globalization* of the industry will create increased demand from managers for large size agricultural firms that have strategic vision. Requirements of workers will include ability to make decisions based on changing market trends, create efficient organization, succession planning, and speaking a foreign language. There will also be a huge

demand for marketing personnel to improve reputation of the Egyptian products as a source of reliable and high quality agricultural products.

*Safety* of the food supply must be assured. Training quality assurance personnel to understand the concepts of HACCP, ISO and statistical quality control, will enforce proper plant sanitation needed to fulfill the expected growth of processed food. However, checking for more careful and safe food cannot mean lower productivity. Efficient distribution of perishable food supply such as the dairy, and meat products will need the support of a large number of skilled professionals, to transfer these industries from practicing traditional sale of unprocessed staples into stable products that can be distributed safely to the distant urban population.

Higher productivity also implies the development of core critical skills as well as technical functional skills. In order to compete effectively in the international scene, improving the work-ethic should receive high priority. It will be particularly important that the motivation start at the secondary school level for the large number of young Egyptians who will enter the agribusiness workforce at an early age.

***Rising Wealth and Urbanization*** signals constant changing customer desire for new products that meet ever-changing demands. For example, biotechnology advances are having profound effects on agribusiness systems with the improvement in yield. Egyptian workers will need to understand these sciences and then be able to apply the larger concepts at the firm level. New product development in Egypt, however, will need to follow strict food chemical regulations. Fear of food additives is not yet an issue in Egypt, even though some old unproved food additives are sometimes added to food for preservation. Trained professionals in food regulation who can establish local food laws, enforce them, and maintain proper food label information will be required.



The necessary skills described above infiltrate into all levels of the cluster. Through interviews, focus groups, and the cluster workshop, stakeholders indicated to the WDS Team the skills gaps among present employees at different levels (executives, supervisors, and production workers) include both functional and critical core competencies such as time management and hygiene (See Figure 5). The workforce development challenge ahead is closing the present skills gap and

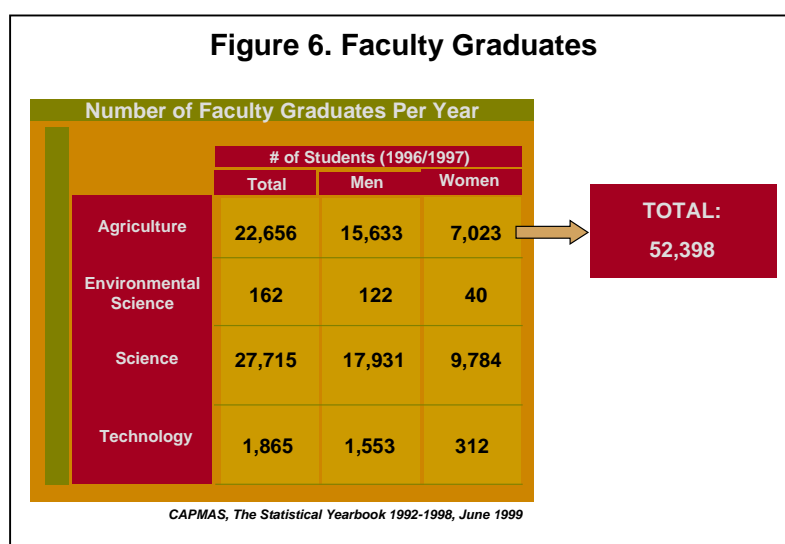
upgrading present and future workers' skills in this competitive cluster.

## Education and Training Providers

The Egyptian agribusiness cluster has many strengths to build on as it attempts to find a way to properly train its existing and new workforce to respond to the global megadrivers. Overall, Egypt has a good higher education program in many aspects of agronomy and food service. For example, the University of Cairo provides training in agronomy, food science, and engineering. Also, large numbers of professionals are educated abroad in the United



States and in Europe. Thus, there is a significant pool of professionals with good higher education available in Egypt (See Figure 6).

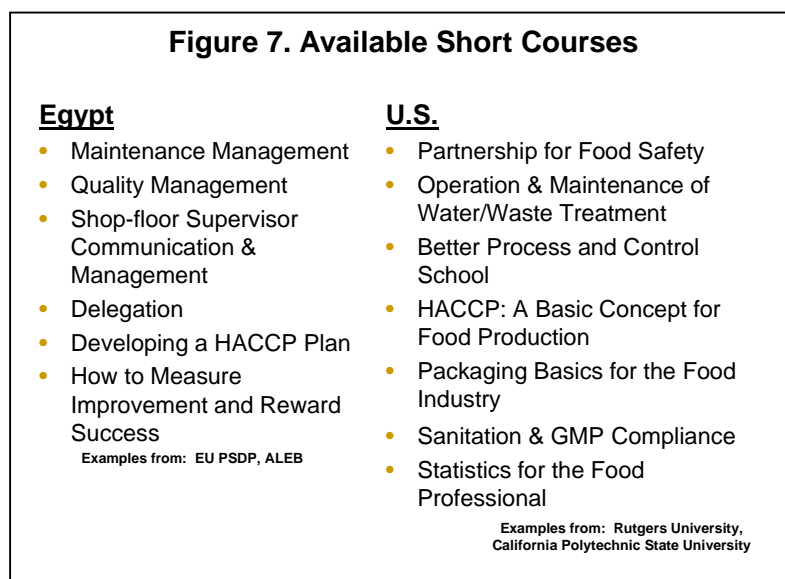


Some faculties also undertake quality applied food technology research. The Food Technology Research Institute (FDRI), located on the campus of the University of Cairo, is engaged in problem solving research based on processing and packaging of food. FDRI utilizes students to assist in these projects and obtain practical skills. FDRI is conducting training and

extension courses for agronomists and agricultural engineers to improve their skills. Also FDRI is disseminating up-to-date information on proper nutrition, modern food processing, quality assurance, and sanitation to inform professionals in new developments.

Beyond some four-year science degree programs and R&D institutes like FTRI, there is a lack of applied curricula. Typically university programs do not try to solve practical industry problems – they are out of touch with the industry.

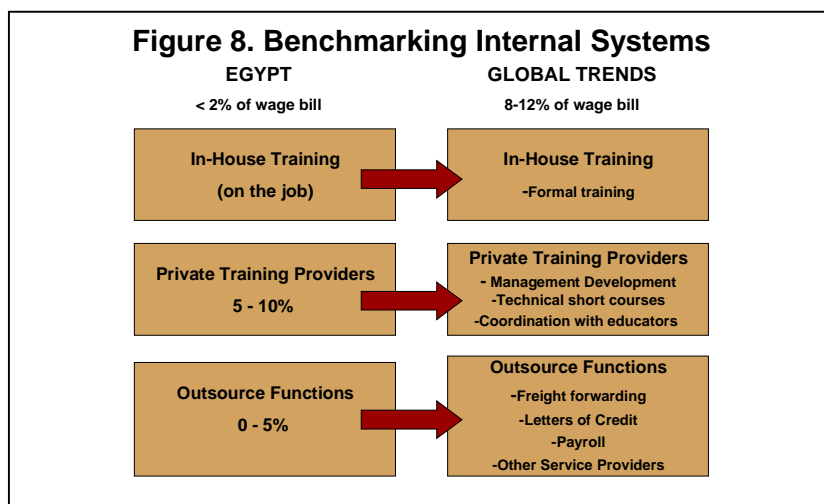
However, there are few alternative training solutions that address these needs. These solutions could take the shape of two-year associate degrees or short courses. Not all agribusiness professionals – including our high-impact segments of fresh and processed foods need four-year agronomy or food science degrees. Instead, as demonstrated in the



U.S. and Europe, when an employer demands in-depth knowledge of a particular subject, these shorter, more focused educational vehicles easily could provide the needed skills and knowledge.

Some short courses are offered in Egypt (See Figure 7). For example, recently the Horticulture Export Improvement Association (HEIA) has provided its members

access to modern production technology, state-of-the-art post-harvest handling practices and to international market information. Moreover, HEIA and some additional programs such as ExpoLink and ALEB provide management and worker training courses, and short courses in quality-assurance related issues. But beyond these, there are very few training providers even attempting to fill this void.



However, a lack of training providers is a symptom of an industry not articulating its demand. As the WDS Team's research and stakeholder dialogue points out, on the whole, the cluster does not see workforce development as crucial to their overall competitiveness. Agribusiness firms spend less than two percent of

the wage bill on training, and a majority of the training they do provide "on the job" (See Figure 8).

### Internal Human Resource Systems

Workforce development is far more than training. With a high turnover, recruiting and retaining workers is a constant concern of agribusiness stakeholders. For example, the WDS Team's research indicated that at the lowest levels, the seasonal and low status quality of agricultural work negatively affects both men and women's desire to enter the industry. Stakeholders noted that they had difficulty retaining workers, especially young unmarried women who reportedly quit upon marriage. At the upper levels, it appeared even harder to recruit qualified women as certain constraints such as lack of training in the formal food sciences or willingness to travel outside Cairo to food processing plants.

However, innovative human resource programs may draw individuals with the skills necessary in this more competitive environment. For example, women are already associated with quality assurance tasks in food processing firms, from sorting and grading fruits and vegetables to supervising and monitoring quality control of the finished product. Women are perceived as having better natural abilities at these types of detail-oriented tasks. If firms wish to address their quality assurance needs, one option may be to recruit female members of the labor pool more vigorously and define career paths they might take in this field. The risk of this strategy is the real possibility that quality assurance, if increasingly associated with women, would become devalued (the so-called "feminization of labor" effect). Quality management, as an industry goal, must therefore be given the prestige it deserves, both for the sake of the competitiveness of Egyptian agribusiness firms and for the sake of women workers.

As important as finding the right workers, is deciding if workers should be performing certain functions at all. Within the Egyptian agribusiness cluster, very few functions are outsourced. For example, instead of storing and refrigerating products with a business that specializes in this field, most firms are attempting to undertake this process and thus develop skills in this area. This spreading of a firm's core business may be a wise corporate strategy, but it requires developing a workforce to be proficient in a wider variety of skills as well. As most agribusiness firms are spending little money on workforce development to begin with, the question is how will these workers gain the knowledge necessary to make the individual firm and the cluster more competitive?

Finding a solution to these complex HRM issues requires a well-developed internal human resource system. This system should include workforce assessments that correctly identify the type of individuals and skill sets needed in the industry, policies and incentives that encourage employees to remain within the firm, job descriptions articulating the firm's expectations for each employee, orientations that shares the firm's strategy and how the workers contribute to those goals, and performance assessments and promotions/incentives linked to that performance. Most important in a cluster plagued by high turnover will be the ability to attract and retain the best and the brightest in the agribusiness cluster.

### **The Challenge Ahead**

If the agribusiness cluster is to succeed in expanding its export ability, while capturing more of the local market, the challenge is four-fold:

- Agree on a strategy for cluster firms to collaborate and strengthen all links in the supply chain;
- Translate that strategy into a blueprint for skills needed by the workforce;
- Work with the educators and training providers to ensure the development of new qualified candidates; and
- Put into place appropriate human resource policies and practices that allow companies to recruit, train, retool, and retain these employees.

With a greater awareness of the workforce challenges ahead and how they can positively or negatively affect the overall competitiveness of the cluster, this report now turns to describing initiatives that the private sector and educators believe will begin to address these challenges.

## 5. INITIATIVES FOR ACTION

On December 2, 1999, stakeholders from the Egyptian agribusiness industry gathered at the Meridien Hotel in Cairo, Egypt to be part of an Agribusiness Cluster Strategic Planning Workshop. The goal of the workshop was “to understand, design, and commit to workforce development initiatives that could build and sustain the competitiveness of the Egyptian agribusiness industry.”

After a discussion of the present state of the agribusiness industry, the stakeholders (representing business leaders, educators, training providers, and government officials) created a list of proposed initiatives that the stakeholders could undertake to address present and future workforce skills gaps. Next, the stakeholders refined these initiatives in smaller focus groups. The attached pages summarize the list of proposed initiatives, and then detail the refined three priority actions selected by the stakeholders.

As stated in the Introduction to this report, the initiatives presented below are not the WDS Team’s recommendations to USAID on what activities it should support. Instead, these represent a wide menu of initiatives that the cluster stakeholders are, to a varying degree, committed to and able to implement. However, it is the WDS Team’s recommendation that any decision by a donor to assist in workforce development activities in the cluster should be based on this list of initiatives, as they have the stakeholders’ momentum to ensure the that the actions succeed.

### Potential Initiatives

During the strategic planning workshop, the stakeholders brainstorming session, the participants developed the following list as potential actions/initiatives they could undertake to address some of their workforce development challenges:

#### *Education-Industry Linkage Programs*

- Encourage linkages between industry and education/training providers
- Internships
- Dissemination of studies/thesis
- Encourage academic involvement in applied research to address practical problems
- Field days
- Training of trainers
- Design vocational/certificate programs to meet practical industry needs
- Tailored, short training programs for middle management/supervisors and operations workers

#### *Strengthening of Internal HR Systems*

- Developing work environment to overcome gender/worker discipline or turnover problems

- Bonus to return to work after marriage
- Allocate proportion of budget to training
- Broadening the HR Mission and function (beyond the payroll/administrative function)
- HR certification program

#### ***Industry Association Initiatives***

- Certification of specific skills
- Cluster-based solutions to address common problems
- Database of skills sets
- Clearinghouse to disseminate information on cluster needs on a national basis
- Cost sharing/pooling of budget resources to create economies of scale in training
- Cost/sharing/brokering of information to access HR management expertise
- Access to specialized skills and service providers (e.g. repair and maintenance, security)
- Create access to specialized infrastructure (cold storage)
- Enhance awareness of importance of hygiene/sanitation work ethic, etc. through mass media (TV, radio)
- Create and disseminate successful/best practice models for Egypt (e.g. gender training)
- Enhance role of industry association in responding to training/HR management need
- Raising and channeling funding for training

#### **Planned Initiatives**

From the list of potential initiatives, the agribusiness cluster stakeholders developed three initiatives into more detailed action plans. The pages that follow describe these three initiatives in greater detail.

**Initiative I:**

Education Provider-Industry Linkage Program

**Initiative Mission:**

Create a closer link between the agribusiness industry and Egyptian training providers in order to provide students/workers with the right set of skills to compete in their industry.

**Initiative Overview:**

Agribusiness educators and training providers are generally not able to provide students with the knowledge and skill base that is relevant to the current needs of the industry. The initiative would consist of an industry/training provider partnership. Under the initiative, the agribusiness industry would open up a dialogue with the agricultural faculties and training institutes to articulate their needs for a more pragmatic education. The focus of the program would be to introduce more practical, hands-on curricula at the agricultural colleges and institutes, more closely tied to the needs of the agribusiness industry. It will also seek to upgrade and diversify the current set of workforce skills.

**Initiative Action Plan:**

**Step 1:** Define training needs of agribusiness industry. Consolidate/update existing training needs assessment information (*January 18, 2000*).

**Step 2:** Prepare presentation of training needs assessment (*End January 2000*).

**Step 3:** Contact regional faculties of agriculture and institutes to articulate training needs (*March 2000*).

**Step 4:** Consult with teachers and faculties about updates of the curriculum oriented towards practical-learning techniques. Faculty and instructors modify programs to reflect current needs (*May 2000*).

**Step 5:** Implement new program with mix of classroom learning and applied learning on the farm and in the processing plants (*July 2000*).

**Step 6:** Review and monitor program, and make adjustments if needed (ongoing annually).

**Initiative Champions:**

Institutional Champion: Horticulture Export Industry Association

Individual Champions: Human Resource Committee Chairman and Vice-Chairman

**Initiative II:**

Strengthening of Internal HR Systems

**Initiative Mission:**

Establish/upgrade human resource systems in the Egyptian agribusiness cluster companies in order to enhance employee productivity, loyalty, and career development.

**Initiative Overview:**

The proposed initiative will strengthen the internal HR systems of agribusiness cluster companies. The program will develop work environments that will: improve worker discipline; reduce turnover problems; enhance skills; and overcome gender-related work problems. The initiative will broaden the HR mission within the companies beyond the payroll/administrative function. The Association of Human Resource Managers will certify the HR programs of the companies to ensure that they meet professional HR system standards. The Association of Human Resource Managers will also develop “best practice models” to deal with issues such as: workplace turnover; incentives to encourage a return to work after marriage; and company budget allocations for training.

**Initiative Action Plan:**

**Step 1:** The Association of Human Resource Managers (AHRM) and the Management Development Initiative (MDI) will develop a senior executive leadership program to develop awareness of HR development strategies (*February 2000*).

**Step 2:** AHRM/MDI will assess the current human resource systems in agribusiness companies (*March –July 2000*).

**Step 3:** AHRM/MDI will develop model HR systems appropriate to the agribusiness companies in Egypt (*February – March 2000*).

**Step 4:** AHRM/MDI will help the agribusiness companies’ systems introduce the new HR systems. The new HR new systems will include: job descriptions, training needs assessment/delivery mechanisms, and will establish career paths for the employees (*April -December 2000*).

**Step 5:** The new HR systems introduced will be certified by AHRM to ensure the systems meet the standards set by the Association (*Ongoing starting April 2000*).

**Initiative Champions:**

Association of Human Resource Managers  
Management Development Initiative  
Horticulture Export Industry Association

**Initiative III:**

HEIA Workforce Development Initiative

**Initiative Mission:**

To enhance capacity of HEIA to respond to the workforce development needs of the agribusiness cluster.

**Initiative Overview:**

This initiative will enhance the role of HEIA in responding to training/HR management needs of the sector. One of the outcomes of this program is to create and disseminate successful/best practice models for Egypt (e.g. gender training). The program will develop an action plan that will include raising funds within the association for training/HR development purposes.

**Initiative Action Plan:**

**Step 1:** HEIA champions will meet to finalize objectives and work plan of the initiative (*December 15, 1999*).

**Step 2:** Form a finance committee to develop a procedure to assess members for training programs (*February 15, 2000*).

**Step 3:** Develop an action plan to for human resource development (*February 15, 1999*).

**Step 4:** Recruit new members of HEIA (*March-September, 2000*).

**Step 5:** Create a training manual with different modules for the different HR development/training needs of the cluster firms (*July 2000*).

**Step 6:** Develop a certification program to recognize specific professional, technical, and operational skills within the agricultural cluster (*Starts September 2000, with ongoing implementation*).

**Step 7:** Create a clearinghouse to disseminate information on: cluster training/work force needs; HR management expertise; training providers, and specialized skills and service providers, e.g. repair and maintenance, security (*August- October 1999*).

**Initiative Champions:**

Institution: Horticulture Export Industry Association

Individuals on Action Committee: Amr EL Tonsy (HEIA); Mabil Badr Hamd (HEIA); Adly El Desuky (Heinz); Amin Tawfic (Belco); Janine Kharama (Cesam) ; and Khalil Nasrallah (Wadi Foods)



## APPENDIX A: AGRIBUSINESS CLUSTER STRATEGIC PLANNING WORKSHOP

**Agribusiness Strategic Planning Workshop - Participant List**  
**Thursday, December 2, 1999**

<b>Title</b>	<b>Participant Name</b>	<b>Position</b>	<b>Organization Name E-mail Address</b>	<b>Telephone</b>	<b>Fax</b>
Mr.	Patrick Mansour	Vice President	Givrex Givrex@dataprs.com.eg	03-420-7804 03-420-2666	03-421-2139
Mr.	Hussam Shalaby	General Manager	Arcotrade <a href="mailto:Arcot@intouch.com">Arcot@intouch.com</a>	393-8089 393-8869	393-80-89
Ms.	Janine Kharma	Chairman	Cesan Food <a href="mailto:Karma@soficom.com">Karma@soficom.com</a>	350-1992	350-1993
Ms	Dalia Ahmes	Assistant Marketing Manager	Cesan Food	750-9012	350-1993
Mr.	Ashraf M. Fouad	Planning & Follow up Director	El Aguizy International <a href="mailto:Ashraf@elaguizy.com">Ashraf@elaguizy.com</a>	570-2645 571-3135 012-2249363	570-7646 570-2666
Mr.	Raafat Rozeika	Chairman	Golden Foods	337-5687 337-5366	337-5366 360-2282
Mr.	Adel Solaya	Chairman	SFCO	450-7962	450-9675
Mr.	Bishara Sirafim	General Manager	Spiceland <a href="mailto:Spiceland@gega.net">Spiceland@gega.net</a>	589-0018 590-1941	593-0658
Mr.	Khalil Nasrallah	Production Manager	WadiFood	304-5140 012-214-8177	344-7136
Mr.	Hisham El Naggar	Vice President	Daltex Company	305-0505	304-4424
Mr.	Amin Tawfik	Marketing Director	BELCO Company	340-7213 012-211-8279	342-0037
Mr.	Adly Desouky	Agriculture Dep. Director	Heinz Egypt	361-4525	337-9341
Mr.	Moustafa Atalla	Training Manager	Nestlé Egypt, S.A.E.	3411330/1	3411533
Mr.	Mohamed Mashaal	Head of Financial Commercial sector	Misr Milk and Food	257-0677 012-2191524	257-7207
Mr.	Mounir Abdel Meguid	Chairman	Misr Café	290-8347	290-5399
Ms.	Cherifa Rachad	Deputy Export Manager	Sekem	012-3259349 280-7438	280-6959
Mr.	Mamdouh Siyam	Marketing Director	Frosti	215-6982 214-3799	215-5253

Mr.	Salah Morsy	General Manager	Agromisr	03-533-0293 012-214-2398	03-549-7690
Mr.	Bahy El Baroudy		P&G Belbaroud@elroda.com	344-03335	
Mr	Sherif Boulos	General Manager	Farm Fresh	03-4480642 03-486-2907	03-40806401 03-486-2907 03-684-6707
Mr.	Nabil Badr El-Din Hamdi	Chairman	B. Hamdi Sons Farms	575-5379 049-600-901	575-7896
Mr.	Mohamed Ayman Korra	Preisident	Consu Korra Co.	593-0001 591-5769	593-3889
Mr.	Sherif Hassan Hegazy	Owner	Hegazy Farms	347-4079	302-7616
Mr.	Mohamed Saeid Nounou	General Manager	Nounou Farms	482-4388 284-5265 012-210-3472	287-0672
Mr.	Hisham El Meleigy	Director	British Products Sales / Blue Nile Centre	340-3665	340-8988
Mr.	Mostafa Talha	Sales Manager	Novartis Company	360-1380	337-9647
Mr.	Amr El Tonsy	Executive Director	HIEA	338-3080	338-1940
Mr.	Ashraf Hassan	CEO	Cairo Agro-Processing	266-4544 266-4544	266-7779 266-4222
Mr.	Mohamed El Sayed Rashad	Business Development Manager	Cairo Agro-Processing	266-4544 266-4544	266-7779 266-4222
Ms.	Laila El Mahdy	D. Director	Agriculture Research Min. Agr.	571-8324	568-4669
Mr.	Dennis Buda	C.O.P.	ALEB	338-1445	348-0729
Mr.	Doug Anderson	Deputy C.O.P.	ALEB	338-1445	348-0729
Mr.	Teddy Tadros		ALEB <a href="mailto:Tedy@egyptonline.com">Tedy@egyptonline.com</a>	012-218-1888 356-1196	
Mr.	Kelly Harrison		MDI <a href="mailto:mdi@infinity.com.eg">mdi@infinity.com.eg</a>	337-8267	338-1940
Mr.	Hassan Mekawy	Account Executive	Expo Link <a href="mailto:Hmekawy@expolink.org">Hmekawy@expolink.org</a>	304-6886	304-6889

**USAID / US Embassy**

Mr.	David Delgado <a href="mailto:ddelgado@usaid.gov">ddelgado@usaid.gov</a>		USAID Egypt	516-5505 x 2133	
Mr.	Tarek Shata		USAID Egypt <a href="mailto:Tashta@usaid.gov">Tashta@usaid.gov</a>	516-5505 Ext. 2084	516-4652
Mr.	David Schroder <a href="mailto:daschroder@usaid.gov">daschroder@usaid.gov</a>		USAID Egypt	516-5505	
Dr.	Mohamed Omran <a href="mailto:Momran@intouch.com">Momran@intouch.com</a>		USAID Egypt	516-5505	
Mr.	Bob McClusky <a href="mailto:rmcllusky@usaid.gov">rmcllusky@usaid.gov</a>		USAID Washington	202-714-5456	
Ms.	Gwen El Sawi <a href="mailto:Gelsawi@usaid.gov">Gelsawi@usaid.gov</a>		USAID Washington		
Mr.	Tom Pomeroy		US Embassy	356-3989	356-3989

**Workforce Development Team**

Ms.	Tessie San Martin		PricewaterhouseCoopers	001-703-741-1000	
Ms.	Tammy Mank		PricewaterhouseCoopers	001-703-741-1834	
Mr.	Mike Samra		PricewaterhouseCoopers	012-218-0268	
Ms.	Aliaa Serafy		PricewaterhouseCoopers	012-346-3644	
Mr.	Peter Boone		SRI International		
Mr.	Laszlo Somogyi		SRI International	1-510-527-1261	
Ms.	Anita Fabos		PricewaterhouseCoopers	340-0721	340-9368
Mr.	Khaled Sidky		PricewaterhouseCoopers Cairo	516-8027/8 012-2197504	